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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,057	08/30/2001	Thomas Herbert Jones	PU010155	8742

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EXAMINER

MEHRA, INDER P

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/943,057	Applicant(s) JONES ET AL.	
	Examiner Inder P. Mehra	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/30/01&7/14/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to application dated: 8/30/01.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-7 and 13-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 1 recites the limitation "a second transport medium" in line 11. There is insufficient antecedent basis for this limitation in the claim, because this limitation is preceded by "a second transport medium" in line 2.

- b. Claim 3 recites the limitation "said interface device" in line 5. There is no antecedent basis for this limitation in the claim.

- c. Claim 3 recites the limitation "timing errors" in line 5. There is insufficient antecedent basis for this limitation in the claim. This is preceded by "timing errors" in line 3.

- d. Claim 4 recites the limitation "said second medium" in line 3. There is insufficient antecedent basis for this limitation in the claim. This limitation is preceded by limitation "a second transport medium" in line 9. Similar problem exists in claim 5 line 3.

Art Unit: 2666

- e. Claim 5 recites the limitation "said transport stream" in line 2. There is insufficient antecedent basis for this limitation in the claim. This limitation is preceded by "first transport stream" or "second transport stream" in claim 1 lines 1 and 2.
- f. Claim 7 recites the limitation "said at least one elementary stream processors" in line 2. There is insufficient antecedent basis for this limitation in the claim. The limitation preceding this limitation is "at least one elementary stream processing device" in claim 6 line 2
- g. Claim 13 recites the limitation "said adapted packets" in line 10. There is insufficient antecedent basis for this limitation in the claim. Claim 13 is an independent claim reciting "adapting ---said extracted packets---", in line 7-9.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 9-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Admitted Prior Art** (refer to specifications page 1-**Background of the Invention**), hereinafter, **APA**, in view of **Schiller et al** (US Patent No. 5,499,046), hereinafter, '046, further in view of **Eidson et al** (EP 0, 722, 233), hereinafter, **Eidson**.

For claims 1, 9 and 13, Admitted Prior Art (APA) discloses "apparatus, comprising:

- a modem, for receiving from a first medium a first transport stream having disposed therein packets associated with a second transport stream, said second transport stream packets being susceptible to timing errors (“A **modem** may be considered a "front-end" device, which retrieves information from **the access network** (first medium) and provides the information to a "back-end" device, such as a PC (packets). In a typical configuration, a modem such as a digital subscriber line (DSL) or cable modem interfaces to a PC via a peripheral component interconnect (PCI) slot associated with the PC”, refer to specification page 1 lines 9-13);

‘046 discloses “a modem, for receiving from a first medium a first transport stream having disposed therein packets associated with a second transport stream, said second transport stream packets being susceptible to timing errors” (SCPC modem 77 or other conventional data transfer device at headend 9 receives the data packets and thereafter demodulates the data stream before directing the packets to conventional Forward Error Correction (FEC) detector/corrector 71, refer to col.--- lines ---);

a transport interface (PCI), for providing said packets associated with said second transport stream to a second transport medium, (refer to “a digital subscriber line (DSL) or cable modem **interfaces** to a PC via a peripheral component interconnect (PCI) slot associated with the PC. Admitted Prior Art page 1 lines 11-13;

Both Admitted Prior Art and ‘046 do not disclose expressly the following limitations, which are disclosed by Eidson, as follows:

Art Unit: 2666

Eidson discloses “a data control module (Time Packet Detector control circuit 30 in fig. 7), for adapting said second transport stream packets in a manner tending to reduce said timing errors (Synchronization accuracy is improved, refer to col. 3 lines 56-57, said data control module utilizing timing information recovered from at least one of said first transport stream and said second transport stream (refer to col. 3 lines 42-58, col. 5 line 36 through col. 6 line 19.

Eidson discloses “a transport interface (PCI), for providing said packets associated with said second transport stream to a second transport medium (refer to “network Transfer Device”, refer to col. 2 lines 50-52),

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of “a data control module (Time Packet Detector control circuit 30 in fig. 7), for adapting said second transport stream packets in a manner tending to reduce said timing errors (Synchronization accuracy is improved as taught by Eidson. The capability can be implemented by connecting Timing Packet Detector (TPD) to modem. The motivation for doing so being that it provides error free packets without jitters and recovery of clock.

For claims 2 and 10, Admitted Prior Art (APA) and ‘046 disclose all the limitations of instant claims, with the exception of the following limitations, with the exception of the following limitations, which are disclosed by Eidson, as follows:

- a router, for routing transport packets from said modem to said data control module, refer to col. 1 lines 48-50 and 2 lines 50-52.

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of “router”. This capability can be combined at the front end

Art Unit: 2666

device of the Admitted Prior Art. The motivation for doing so being that it provides transfer of packets between two mediums.

For claims 3 and 11, APA and '046 disclose all the limitations of subject matter, with the exception of the following limitations, which is disclosed by Eidson, as follows:

* an interface module for transferring data between said data control module and a computing device, said interface module tending to induce said timing errors within said packets associated with said second transport stream (jitter and delay can be introduced by other network elements such as gateways, bridges, and routers, or the physical communication medium, refer to col. 1 lines 47-50), said data control module operating to reduce timing errors induced by said interface device, (refer to "the desire events may be controlled by issuing commands to the nodes from a central controller over a control bus", refer to col. 1 lines 50-59).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of "said data control module operating to reduce timing errors induced by said interface device". This capability can be combined at the front end device of the Admitted Prior Art. The motivation for doing so being that it provides transfer of packets between two mediums with no jitters.

For claim 4, Admitted Prior Art discloses "a back-end processing device, for receiving said packets associated with said second transport stream via said second medium" (refer to Admitted prior art "A modem may be considered a "front-end" device, which retrieves information from the access network and provides the information to a "back-end" device, such

Art Unit: 2666

as a PC. In a typical configuration, a modem such as a digital subscriber line (DSL) or cable modem interfaces to a PC via a peripheral component interconnect (PCI) slot associated with the PC”, refer to page 1 lines 9-13.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Admitted Prior Art** (refer to specifications page 1-**Background of the Invention**), hereinafter, APA, and **Schiller et al**, hereinafter, ‘046, in view of Eidson et al, hereinafter, Eidson and further, in view of, **Wilson** (US Patent Application No. 2002/0184649).

For claims 5 and 6, APA and ‘046 disclose all the limitations of subject matter, with the exception of the following limitations, which is disclosed by Eidson and Wilson, as follows:

- a transport processor, for retrieving packetized elementary streams from said transport stream propagated through said second medium, as recited by claim 5, (A second node receives the first timing packet and the first synchronization message from the first node. The TPD of the receiving node detects the arrival of the first timing packet and generates a reception time stamp that reflects the local time of reception, as measure by the receiving clock. The receiving node next receives the first synchronization message and compares the transmitting timestamp with the reception timestamp (refer to Eidson’s col. 3 lines 42-49).

Wison discloses “an MPEG program is made up of a plurality of elementary streams. Generally, an MPEG program includes a video

Art Unit: 2666

elementary stream, which is made up of packets having digitized video information included therein, and at least one audio elementary stream”, page 1 paragraph 0006).

- Wison discloses “at least one elementary stream processing device, for processing retrieved packetized elementary streams provided by said transport processor”, **as recited by claim 6** (Refer to “An MPEG program is made up of a plurality of elementary streams. Generally, an MPEG program includes a video elementary stream, which is made up of packets having digitized video information included therein, and at least one audio elementary stream”, page 1 paragraph 0006).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of “a transport processor, for retrieving packetized elementary streams from said transport stream propagated through said second medium, **as recited by claim 5; and** “at least one elementary stream processing device, for processing retrieved packetized elementary streams provided by said transport processor”, **as recited by claim 6** These capabilities can be combined at the front end device of the Admitted Prior Art. The motivation for doing so being that it provides transfer of packets between two mediums with no jitters.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Admitted Prior Art** (refer to specifications page 1-**Background of the Invention**), hereinafter, APA, and

Art Unit: 2666

Schiller et al, hereinafter, '046, Eidson et al, hereinafter, Eidson, in view of , **Wilson** , and further in view of **Ficco et al** (US Patent No. 6868292), hereinafter, Ficco.

For claim 7, APA, 046, Eidson and Schiller disclose all the limitations of subject matter, with the exception of the following limitations, which is disclosed by Ficco, as follows:

- “wherein said transport processor and each of said at least one elementary stream processors is implemented by respective reduced instruction set (RISC) computing devices”, (Transport processor 330 performs real-time functions and ---and may be constructed with an ASIC (application specific integrated circuit) that contains, for example, a general purpose R3000A MIPS RISC core, refer to col. 8 lines 37-45).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of “wherein said transport processor and each of said at least one elementary stream processors is implemented by respective reduced instruction set (RISC) computing devices”, These capabilities can be combined at the front end device of the Admitted Prior Art. The motivation for doing so being that it provides transfer of packets between two mediums with no jitters.

8. Claims 8, 12, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Admitted Prior Art** (refer to specifications page 1-**Background of the Invention**), hereinafter, APA, and **Schiller et al**, hereinafter, '046, Eidson et al, hereinafter, Eidson, in view of, **Kostreski et al** (US Patent No. 5,734,589), hereinafter, '589.

Art Unit: 2666

For claims 8, 12, and 15-16 , APA, 046, Eidson disclose all the limitations of subject matter, with the exception of the following limitations, which is disclosed by '589, as follows:

- wherein said first transport stream comprises one of an asynchronous transfer mode (ATM) or internet protocol (IP) transport stream, said second transport stream comprises one of an MPEG-I, MPEGQ, MPEG-M and MPEGJ transport stream (The network interface module 101 will include means to demodulate received broadband data and convert ATM (Asynchronous Transport Mode) cell stream data into MPEG bit stream data for further processing, refer to col. 8 lines 40-45).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of " wherein said first transport stream comprises one of an asynchronous transfer mode (ATM) or internet protocol (IP) transport stream, said second transport stream comprises one of an MPEG-I, MPEGQ, MPEG-M and MPEGJ transport stream, These capabilities can be combined at the front end device of the Admitted Prior Art. The motivation for doing so being that it provides transfer of packets between two mediums with no jitters.

For claim14, APA, 046, Eidson disclose all the limitations of subject matter, with the exception of the following limitations, which is disclosed by '589, as follows:

- "wherein said first transport stream corresponds to a first transport stream format and said second transport stream corresponds to a second transport stream format", (refer to "the network interface

Art Unit: 2666

module 101 will include means to demodulate received broadband data and convert ATM (Asynchronous Transport Mode) cell stream data into MPEG bit stream data for further processing”, refer to col. 8 lines 39-45).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of “wherein said first transport stream corresponds to a first transport stream format and said second transport stream corresponds to a second transport stream format”, These capabilities can be combined at the front end device of the Admitted Prior Art. The motivation for doing so being that it provides transfer of packets between two mediums with no jitters.

Prior Art of Record

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- **Hansen** (US Patent No. 5,961,589) discloses system for translationless videoconferencing interoperability between an analog modem based node and an integrated modem based node.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

Art Unit: 2666

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder Pal Mehra 5/14/05
Inder P Mehra
Examiner
Art Unit 2666



FRANK DUONG
PRIMARY EXAMINER